
SYNOPSIS OF THE NORTH AMERICAN SPECIES OF THE
GENUS *CAPITONIUS* BRULLE.*

BY S. A. ROHWER, WASHINGTON, D. C.

The North American species which are here placed in the genus *Capitoni* have been referred to a number of genera, as may be seen from the bibliography of the species which follows.

Szepligeti (Gen. Insectorum, Braconidæ) states that all our species belong to the genus *Cenocoelius* Westwood. According to the type species, as indicated by Viereck, Bull. 83, U. S. Nat. Mus., *Cenocoelius* Westwood is founded on *flavifrons*, which is not yet characterized, but *Cænocoelius* Marshall is synonymous with *Capitoni*. *Capitoni* having priority is used for our species. It may be possible by comparison with the type of *Capitoni* to differentiate the North American species into a different generic group, if certain Neotropical species are typical *Capitoni* of the Neotropical region, but sufficient material is not available for such study. From the material and notes available it is evident that the species of the genus *Capitoni* are parasitic on wood or bark boring Coleoptera, and from the notes it seems that they are all internal parasites pupating after destroying the host within a cocoon in the larval gallery. The following host relations seem to be thoroughly established for the North American species:

Liopus alpha and *Liopus fascicularis* in sumach—Parasitized by *Capitoni ashmeadi* and *Capitoni provancheri*.

Leptostylus (either *macula* or *collaris*) in chestnut—Parasitized by *Capitoni leptostyli*.

Lepturgus facetus in chestnut—Parasitized by *Capitoni provancheri*.

Goes oculata in *Oxydendrum arboreum*—Parasitized by *Capitoni nigrisoma*.

Micrasis in hickory—Parasitized by *Capitoni provancheri*.

Synoxylon in hickory—Probably parasitized by *Capitoni caryæ*.

Saperda candida in elm—Parasitized by *Capitoni saperdæ*.

*Contribution from the Branch of Forest Insects, Bureau of Entomology, U. S. Department of Agriculture, Washington, D. C.

Table to the Species.

- Abdomen rufous; head and thorax black.....1.
- Abdomen and thorax black.....4.
1. First tergite smooth, the embossed area only indicated
basally*erythrogastra* Rohwer.
First tergite more or less striate and with a rather well-defined
embossed area.....2.
2. Embossed area of the first tergite not well defined; the striae on
the first tergite not extending beyond the
middle.....*carya* Rohwer.
Embossed area of the first tergite defined by strong carinae,
which extend beyond the middle of the tergite.....3.
3. Notauli not foveolate.....*sanguiniventris* Ashmead.
Notauli strongly foveolate.....*saperdæ* Ashmead.
4. First tergite entirely without sculpture.....5.
First tergite usually strongly sculptured and always with some
sculpture at the base.....6.
5. Legs uniformly pale testaceous; median depression of the
anterior portion of the prescutum well defined, but without
defining lateral carinae.....*leptostyli* Rohwer.
Legs black or piceous; the median depression on the prescutum
broader and shallow and with well-defined lateral
carinae.....*nigrisoma* Rohwer.
6. Prescutum sculptured like the scutum; first tergite with strong
carinae basally, without other sculpture..*tenuicornis* Rohwer.
Prescutum more closely sculptured than the scutum; first
tergite not so.....7.
7. First tergite with strong carinae, which reach the apex of the
segment, but with no predominating median
rugae.....*ashmeadii* (D. T.)
First tergite with the striae laterally which never reach the
apex of the segment and with a predominating median stria
or shining median area separating off a subembossed
area.....*provancheri* Rohwer.

Capitonus erythrogastra, new species.

Female.—Length 5 mm. Head broad as the thorax; posterior orbits broad; median portion below the antennae with distinct

punctures which are separated by about twice the width of a puncture; the clypeus, the sides, the front and occiput shining, impunctate or with very sparse, separated punctures; third antennal joint but little longer than the fourth; mesonotum shining, practically impunctate; notauli strongly foveolate; the suture between the scutum and scutellum with three strong rugæ; propodeum strongly reticulate, the dorsal surface with two narrow, transverse impressions; first tergite without sculpture. Black; head and thorax densely clothed with long white hair; legs rufous, the bases of the four anterior femora and the posterior tibiæ piceous; abdomen rufous; wings dusky hyaline, venation black.

Morgantown, West Virginia. Described from two females (one type) collected by A. D. Hopkins, and recorded under W. Va. Agricultural Experiment Station Number Hopk. W. Va. 7790*b*, and from one female (paratype) from Tryon, North Carolina, collected by W. F. Fiske, and recorded under Bureau of Entomology Number Hopk. U. S. 1645*c*.

Type.—Cat. No. 18277, U. S. N. M.

Capitonus caryæ, new species.

Female.—Length 5.5 mm. Closely allied to *erythrogastra*, but may be distinguished from that species by the characters in the foregoing table, in having the propodeum rufous, the legs black except the rufous hind femora.

Tryon, North Carolina. Described from two females recorded under Bureau of Entomology Number Hopk. U. S. 3654*j*, which refers to a note stating that this species is probably parasitic on *Synoxylon* in hickory, material collected and reared by W. F. Fiske.

Type.—Cat. No. 18278, U. S. N. M.

Capitonus sanguiventris (Ashmead).

Promachus sanguiventris Ashmead—Proc. U. S. Nat. Mus., 1888, Vol. II, p. 653.

Capitonus saperdæ (Ashmead).

Promachus saperdæ Ashmead—Proc. U. S. Nat. Mus., 1888, Vol. II, p. 652. (A brief reference with a negative description.)

Promachus saperdæ Riley manuscript.

Riley—Ins. Life, Vol. III, 1890, p. 59.

Bracon populator Say—Long's Exped. to St. Peter's River, Vol. II, 1824, p. 323. (The original description will apply to many species in a number of different subfamilies in the Braconidæ.)

This species may be differentiated from the other species of the group by the foregoing table; the propodeum may or may not be rufous; the legs are entirely rufous.

Type.—Cat. No. 18279, U. S. N. M.

Capitonius rugosus (Provancher).

Syngastre rugosus Provancher—Addit. Fauna Ent. Hym. Can., 1886, p. 122.

Capitonius rugosus Provancher—Addit. Faun. Hym. Can., 1888, p. 378.

From the original description this species belongs near *sanguiniventris* Ashmead and allies, but none of the species agree with the original description in having the second segment aciculate. If this is true of Provancher's species it is undoubtedly distinct.

Capitonius leptostyli, new species.

Male.—Length 4 mm. Head fully as wide as the widest portion of the thorax, uniformly sparsely punctured, the posterior orbits not as wide as the diameter of the eye; third antennal joint subequal in length with the fourth; prescutum with large, well-defined punctures; scutum polished, shining, with a few small widely-scattered punctures; notauli strongly foveolate; the suture between the scutum and scutellum with five strong rugæ; scutellum sculptured like the scutum; propodeum strongly reticulate without any transverse areas dorsally; abdomen shining without sculpture; the embossed area of the first tergite defined at the extreme base only. Black; head and thorax with long gray hair; palpi pale testaceous; scape and legs pale testaceous; wings hyaline, venation pale brown, costa and base of stigma light brown.

Tryon, North Carolina. Described from five males collected by W. F. Fiske, and recorded under Bureau of Entomology Num-

bers Hopk. U. S. 3072*o* (type), 3072*i*, 3028*b*, 1495*h*; also a paratype from Ballston (Veitch), Virginia, collected by T. E. Snyder, and recorded under Bureau of Entomology Number Hopk. U. S. 9688*o*¹. The paratypes indicated with this species may have the head black, piceous or rufous. The notes for this species, made by W. F. Fiske, indicate that it is an internal parasite, which in the last stage becomes external, on *Leptostylus* in chestnut (either *Leptostylus macula* or *Leptostylus collaris*). The cocoons are made in the larval galleries of the host.

Type.—Cat. No. 18280, U. S. N. M.

Capitonus nigrisoma, new species.

Female.—Length 6 mm. Head as broad as the widest portion of the thorax; the posterior orbits narrower than the shortest diameter of the eye; head immediately below the antennæ with the punctures about a puncture width apart; remaining portion of the front with the punctures more widely separated; the posterior orbits and occiput with the punctures very widely separated; third antennal joint one-fifth longer than the fourth; prescutum shining with a few large, well-defined, separate punctures; notauli poorly foveolate; scutum with the punctures more widely separated than those of the prescutum; the suture between the scutum and scutellum with many strong rugæ; scutellum shining, impunctate; propodeum strongly reticulate; dorsal lateral part with reticulations tending to transverse areas bounded by carinæ; tergites shining, without sculpture. Black; head below the antennæ and thorax with long white hair; wings hyaline, venation dark brown.

Male.—Length 5 mm. Agrees well with the above description of the female, except in having the head rufo-piceous.

Tryon, North Carolina. Described from two females and one male, recorded under Bureau of Entomology Number Hopk. U. S. 3658*b* and *c* (type, allotype and paratype); paratypes under Hopk. U. S. 1552*f*. Material collected and reared by W. F. Fiske. The notes under 3658*b* state that specimens were reared from dead pine infested with Cerambycidae and Buprestidae. The notes under No. 1552*f* state that this species is a parasite on *Goes oculata* in hickory.

Type.—Cat. No. 18281, U. S. N. M.

Capitonus tenuicornis, new species.

Female.—Length 4 mm. Head hardly as wide as the width of the thorax at the tegulæ, posterior orbits narrower than the shortest diameter of the eye; face shining with a few widely-separated punctures; posterior orbit and occiput shining, impunctate; third antennal joint slightly longer than the fourth; pre-scutum and scutum similarly punctured; the notauli strongly foveolate; the suture between the scutum and the scutellum with ten longitudinal rugæ; scutellum sculptured like the scutum; propodeum reticulate, on the median basal dorsal portion one of the reticulations is larger and roughly diamond-shaped; first tergite with an embossed area on the basal third, which is defined laterally by strong carinæ, otherwise without carinæ or sculpture. Black; antennæ dark piceous; legs dark piceous, but becoming darker basally; head and thorax sparsely clothed with long gray hair; wings hyaline, venation pale brown.

Fort George, Florida. Described from one female from the Ashmead collection and with the Ashmeadian manuscript name, *tenuicornis*.

Type.—Cat. No. 18282, U. S. N. M.

Capitonus ashmeadii (Dalla Torre).

Promachus rubriceps Ashmead—Proc. U. S. Nat. Mus., Vol. II, 1888, p. 653 (nec Ratzeburg or Provancher).

Cenocoelius ashmeadii Dalla Torre—Cat. Hym., Vol. V, 1898, p. 72.

Both males and females of this species are in the collections, and can be readily differentiated by the foregoing table. The species is a primary parasite of *Liopus alpha* and *fascicularis* in Sumach.

Capitonus provancheri, new name.

Capitonus rubriceps Provancher—Addit. Faun. Ent. Hym. Canad. 1886, p. 135 (nec Ratzeburg).

This species is closely allied to *ashmeadii*, but from the specimens available can be readily distinguished from that species by the characters in the foregoing table. It, as well as *ashmeadii*, varies in having the head rufous, rufo-piceous or black. Specimens

of this species have been reared as primary parasites on either *Neoclytus erythrocephalus* or *Agilus egenus* in locust, by A. D. Hopkins in West Virginia, data recorded under W. Va. Experiment Station Number Hopk. W. Va. 6040a; have been reared from the pupal cells of *Liopus alpha* in sumach at Tryon, North Carolina, by W. F. Fiske, data recorded under Bureau of Entomology Number Hopk. U. S. 1514c; have been reared as an internal parasite of *Lepturgus facetus* in chestnut at Tryon, North Carolina, by W. F. Fiske, data recorded under Bureau of Entomology Number Hopk. U. S. 3012a; have been reared as a parasite on *Micrasis* in hickory at Tryon, North Carolina, by W. F. Fiske, data recorded under Bureau of Entomology Number Hopk. U. S. 3192d. It has also been reared as a parasite of *Liopus fascicularis* in sumach by Dimmock.

THE DESTRUCTIVE INSECTS OF NEW JERSEY.

BY HARRY B. WEISS, NEW BRUNSWICK, N. J.

Considering the fact that there are 10,385 species of insects listed as occurring in New Jersey, it is surprising how small a proportion of this number is destructive enough to warrant the application of insecticides. The following list, compiled from Smith's "Insects of New Jersey," gives the number of species in each Order which occur in sufficient numbers to be considered destructive and against which measures of control must be directed at various times. It is to be remembered, of course, that there are numerous other species which are classed as injurious, but these do not occur in numbers large enough to make their presence felt, or they confine their attentions to unimportant plants and are therefore not included in the list.

	Number of species —listed	Number of species —destructive.	Percentage of, species destructive.
Coleoptera	3092	50	1.6%
Lepidoptera	2120	58	2.7 "
Hymenoptera	1980	9	0.4 "
Diptera	1661	28	1.6 "
Hemiptera	504	8	1.5 "
Homoptera	479	28	5.8 "
Orthoptera	154	5	3.2 "

Of the entire number of species in New Jersey 10,385, which includes all Orders, only 1.7 per cent. is really destructive. Of the entire number of species in the above seven Orders, 1.8 per cent. is destructive. As to the individual Orders, Homoptera has